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PROGRAM INFORMATION BULLETIN NO. P06-18

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SUBJECT: Proximity Protection for Remote Control Continuous Mining Machines

Who needs this information?
Operators of underground coal or metal and nonmetal mines, independent contractors, miner's representatives, Mine Safety and Health Administration (MSHA) enforcement personnel, state mining agencies, mine equipment manufacturers, and other interested parties need this information.

What is the purpose of this bulletin?
This Program Information Bulletin (PIB) informs the mining industry of the development and availability of a proximity protection system that can be installed on remote control continuous mining machines. This is a re-issuance of PIB06-03. The reason for the revision is the recent MSHA approval of a second proximity protection system.

What is the capability of a proximity protection system?
A proximity protection system, as installed on a remote control continuous mining machine, provides warning signals and machine shutdown commands when a person enters the hazardous area (red zone) around the machine while operating or working in the vicinity of the machine.

What is the background for this PIB?
Since 1984, there have been 29 fatal crushing or pinning accidents associated with the operation of remote control continuous mining machines. The majority of these accidents occurred while the machine was being trammed from one location to another. In most of these accidents, the fact that the miner operator is assigned multiple tasks (e.g., cable handling), in addition to operating the machine, was considered a contributing factor to the accident.

In an effort to reduce or eliminate these types of accidents, MSHA entered into partnerships with developers of proximity protection systems, mining equipment manufacturers and mine operators to engineer systems that have the capability of causing machine shutdown prior to a remote control continuous mining machine contacting an individual.

In 2002, Nautilus International Control & Engineering, Ltd, Burnaby, BC, Canada, began development of a permissible version of its Buddy Proximity Protection System for remote control continuous mining machine applications. Their system recently completed a successful field trial at an underground coal mine. During this field test, the system provided consistent warning and shutdown commands and effectively prevented an operator wearing a beltpack proximity receiver unit from entering the hazardous area around the machine. The system components have been approved by MSHA as complying with the applicable provisions of Title 30 Code of Federal Regulations (30 CFR) Part 18.

In September 2004, Geosteering Mining Services, LLC, Huntsville, AL, along with its distributor, Gamma Services International, Inc., began development of TramGuard, its version of a Proximity Protection System. Their system also recently completed a successful field trial at an underground coal mine. During this field test, the system provided consistent warning and shutdown commands and effectively prevented an operator wearing a personal alarm device from entering the hazardous area around the machine. The system components have also been approved by MSHA.

Who do I contact to get more information regarding a proximity protection system?
Currently, there are two MSHA-approved proximity protection systems available. The contact information for these systems is:

Jason Hart, Nautilus International Control & Engineering, Ltd, 6866 Russell Ave., Burnaby, BC, Canada V5J 4R9, (604) 430-8316, e-mail: jason.hart@nautilus-intl.com, web: www.nautilus-intl.com.

Dwayne Towery, Gamma Services International, Inc., Clay, KY, (270) 635-0482, e-mail: dwayne@gsimining.com.

As future systems become available, contact information will be included on MSHA's website at the following link: http://www.msha.gov/Accident_Prevention/NewTechnologies/Initiatives/proximityprotection/proximityprotection.asp.

What is MSHA's authority for this PIB?
The Federal Mine Safety and Health Act of 1977; 30 CFR 18.20(b)

Is this PIB on the Internet?
This PIB may be viewed on the World Wide Web by accessing the MSHA home page (http://www.msha.gov) and choosing "Compliance Info" and "Program Information Bulletins."

Who is the MSHA contact person for this PIB?
Kenneth J. Porter, (304) 547-2030
Technical Support , Approval and Certification Center
E-mail: porter.kenneth@dol.gov

Who will receive this PIB?
MSHA Program Policy Manual Holders
Underground Mine Operators
Mine Equipment Manufacturers
Miners' Representatives
Special Interest Groups